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IRVING J. SLOAN: THE COMPUTER AND THE LAW

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BOOK REVIEWS


Reviewed by Valerie Alexander*

I. INTRODUCTION

Use of the computer has exploded over the past three decades. In the nineteen-fifties, the term "computer" brought to mind cool, dark rooms with vast machines softly whirring in the background while soft-spoken men ministered to their mysterious needs. The abilities of computers were quantified in terms of the numbers of calculations they could perform in a thousandth of a second, and although laypersons did not understand why all that was particularly important, it nevertheless impressed everyone mightily.

All that has now changed. "Computer" today conveys to mind as much the "personal" desk top model as it does the "mainframes" which have been relegated to the back rooms and basements of our minds where other essential but subordinate entities toil in their various unsung capacities. Computers have joined the list of unacknowledged necessities such as indoor plumbing and automobiles. We may not understand them all that well, but we recognize our dependence on them and shudder sometimes at the thought of what life would be like without them. The vast rooms with whispering machines have taken their places in horror stories and dated sci-fi; "computer phobia" is no longer a general societal failing but a quaint individual idiosyncracy as fear of math once was; and we have reached new heights in the constant human endeavor to find the ultimate buck-passing position—computer error.¹

More ominous events have followed the course of the computer's expansion. Whenever individuals expand human knowledge and ex-

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¹ As anyone who has spent any time learning the rudiments of computer taming can attest, "computer error" can cover a multitude of human errors. The computer cannot explain itself, even if most people could ask it to do so in the first place. The hacker expression covers the concept best: "garbage in, garbage out." Barring mechanical failure, the computer can only do what a human agent tells it to do.
pertise, other creative individuals enter to take advantage of the new situation. No car theft occurred until Henry Ford made the automobile commonplace. Computer crime\(^2\) has entered American life with a vengeance, and it is only just beginning. More costly than automobile theft, it is quieter, can remain undetected for a considerable period of time or permanently, and can cost millions of dollars. Fun-loving hackers have been skating through privileged information for a decade or so, but criminal minds can acquire the same knowledge for more particular purpose than the challenge of unlocking passwords and leaving obscene messages in confidential files.\(^3\)

As with the initial stage of the automobile, “the law” has not kept abreast of technological developments. It takes time for ordinary citizens to feel the sting of new crimes and to take steps to protect themselves from those who would take advantage of them. The consequences of crimes using the aid of computers have impacted on a great number of individuals by now, however, that legislators have begun constructing laws to meet the challenge. In the meantime, law enforcement agencies have been using existing legislation when faced with crimes involving computers.\(^4\)

Irving J. Sloan has attempted in his slim book to present the law of computers in a form understandable to the layperson. *The Computer and the Law* takes its place in the Legal Almanac Series, which “brings you the law on various subjects in nontechnical language. These books do not take the place of your attorney’s advice, but they can introduce you to your legal rights and responsibilities.”\(^5\) Irving J. Sloan, general editor of the Series, compiled and edited this volume of the Series.

Sloan has organized the book into five chapters and five appendices. The chapters introduce a variety of topics, starting with an overview of computer crime.\(^6\) The book continues with a discussion of computer-related methods of pursuing a criminal career.\(^7\) It next dis-

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2. The term “computer crime” is itself undefined and can cover a number of concepts. 1. SLOAN, THE COMPUTER AND THE LAW 2-3 (1984). Sloan further distinguishes between computer abuse and computer crime, and computer crime and computer-related crime. *Id.*

3. When this reviewer attended the Wesleyan University Summer Computer Institute, several stories of hacker expertise circulated, of which this is a sample.

4. SLOAN, *supra* note 2 at viii.

5. *Id.* at back of title page. The present title constitutes No. 83 in the Series. *Id.* at title page.

6. *Id.* at 1.

7. *Id.* at 9.
cusses traditional statutes applicable to computer-related crime. It then explores general copyright protection for computers. The final chapter discusses the interrelationship between computers and the protection of privacy.

Sloan's appendices include 1) selected examples of traditional state statutes to prosecute computer crimes; 2) selected federal laws used to prosecute computer crime cases; 3) "personal privacy in an information society": summary report of the privacy protection study commission; 4) selected state statutes providing for confidentiality of computerizable information; and 5) sample of states with laws specifically applicable to computers.

II. THE TEXT

Sloan begins his discussion of computer crime with an overview. He explains that computers have altered the environments, methods, forms, and timing of some crimes and lifted their geographical constraints. Attempting to define "computer crime" poses its own problems, because such crime can occur in traditional settings, such as fraud, larceny, embezzlement, bribery, burglary, sabotage, espionage, conspiracy, extortion, and kidnapping, as well as more innovative settings not contemplated by the common law. He suggests several definitions of computer crime, but eschews the narrow definition, that of crime that occurs inside computers, in favor of the term "computer-related crime" because the broader definition recognizes the varieties of ways in which a computer can be involved in a crime. His definition encompasses "any illegal act for which knowledge of computer technology is essential for successful prosecution."

Next, Sloan classifies computer-related crime into four categories, accepting Senator Abraham Ribicoff's system:

8. Id. at 19.
9. Id. at 33.
10. Id. at 41.
11. Id. at 57.
12. Id. at 71.
13. Id. at 75.
14. Id. at 89.
15. Id. at 107.
16. Id. at 1-2.
18. SLOAN, supra note 2 at 3.
19. Id.
1. The introduction of fraudulent records or data into a computer system.
2. Unauthorized use of computer-related facilities.
3. The alteration or destruction of information or files.
4. The stealing, whether by electronic means or otherwise of money, financial instruments, property, services, or valuable data.  

Sloan presents computer-related methods of crime in his second chapter, the most enjoyable and in some respects most informative of his chapters. In it, he presents some of the terms used to describe crime that can be committed only with the use of a computer. Such terms as data-diddling, Trojan horses, salami techniques, superzapping, logic bombs, asynchronous attacks, and data leakage have a certain flavor of computer-ness that is irresistible to those interested in computer-related activities. Others of the terms, unfortunately, sound all too familiar: wire tapping and impersonation. Others are intriguing simply because they sound so innocuous: trap doors, scavenging, piggybacking, and simulation and modeling.

In his next chapter, Sloan attempts to fit traditional statutes to the varieties of computer-related crime. Pointing out that the application of statutes to computer-related crime is complex because of the differentiation that can be made between crimes involving software

20. Id. at 5-6.
21. Data diddling refers to "hanging data before or during their input into computers." Id. at 9. Unfortunately, Sloan does not define "hanging data."
22. "Trojan horses" add instructions to a computer program so that it will perform unauthorized functions without interfering with the intended purposes. Id. at 10.
23. The term springs from an analogy to the taking of small slices without noticeably reducing the whole, and refers to stealing small amounts from a large number of sources through automation. Id. at 11.
24. "Superzapping" comes from the name of a universal access program which all computer operating systems possess for use in emergencies. Support personnel must have a means of bypassing all normal controls. Id. at 11.
25. "A logic bomb is a computer program executed at appropriate or periodic times in a computer system that determines conditions or states of the computer that facilitate the perpetration of an unauthorized, malicious act." Id. at 13.
26. Although Sloan does not explain the method of asynchronous attack, he does explain the computer function from which the technique takes its name. The function allows the most efficient use of computer time when it interacts with humans. Id. at 14.
27. Several techniques fall within this category. Id. at 15.
28. Id. at 17.
29. Id. at 16.
30. Id. at 12-13.
31. Id. at 14.
32. Id. at 16.
33. Id. at 18.
and those involving hardware, Sloan examines state statutes covering arson, criminal ("malicious") mischief, burglary, larceny, theft (or misappropriation) of trade secrets, embezzlement, receipt of stolen property, theft of services or labor under false pretenses, interference with use statutes, and forgery. He also considers federal statutes concerned with arson, conspiracy, and forgery.

Sloan's chapter four, covering general copyright protection for computers, is the shortest in the book, lasting less than two and a half pages before inserting "selected sections of the copyright law of 1976" and what appears to be a reproduction of a pamphlet from the Copyright Office of the Library of Congress.

Sloan bases his last chapter on a Note from the Washburn Law Journal, Computers in the Private Sector. The chapter surveys the impact of computers on the protection of privacy, examining information voluntarily supplied to such collectors as banks, hospitals, political action groups, and direct mail houses. The chapter presents the thesis that the rapid growth of computer use challenges the traditional concept of privacy. The author points out that privacy is threatened in three ways by the use of computers in storing information: the capacity for storing vast amounts of information and retrieving it in a fraction of a second; the impossibility of verifying with the human eye that the computer has stored information accurately; and the fact that it is easier and cheaper to keep outdated information than to delete it from a machine. The chapter continues with a review of the common law torts of appropriation, placing the victim in false light in the public eye, intrusion, and public disclosure of private fact, finding the

34. Id. at 19.
35. Id.
36. Id. at 20.
37. Id. at 21.
38. Id. at 22.
39. Id. at 23.
40. Id. at 24.
41. Id. at 25.
42. Id. at 26.
43. Id. at 27.
44. Id. at 28.
45. Id. at 29.
46. Id. at 30.
47. Id. at 31.
48. Id. at 33-39.
49. Id. at 53 n.*. The Note, Computers in the Private Sector, 22 Washburn L.J. 469 (1980), delineates the material in a concise and informative manner.
50. Sloan supra note 3 at 42.
51. Id.
last the most likely to be the subject of computer-related crime.\textsuperscript{52} In discussing the constitutional limits on an invasion of privacy, the author considers \textit{Griswold v. Connecticut},\textsuperscript{53} \textit{Whalen v. Roe},\textsuperscript{54} and \textit{White v. Davis}.\textsuperscript{55} He also reviews federal statutes and state statutes.\textsuperscript{56} In some respects, an attorney may find chapter five the most comfortable to read because it does mention cases and is set up in a format familiar to anyone who has engaged in legal research. It has a thesis, it develops that thesis with the use of legislative and judicial authority, and it draws a conclusion.

\section*{III. Critique}

\textit{The Computer and the Law} suffers from a series of problems, perhaps due in part to its format, in part to its asserted presentation to laypeople, and in part to its inclusion in a series.

The book suffers to some degree by the author's apparent indecision as to his purpose. The stated purpose of the Series is to inform laypeople of their legal rights and responsibilities.\textsuperscript{57} Sloan's introduction stresses the potentially significant—indeed overwhelming—cost of computer crime, the difficulty law enforcement officials face in investigating or even detecting such crime, and the inadequacy of current legislation.\textsuperscript{58} He reports that Congress has been considering national legislation since 1978 to prohibit computer crime.\textsuperscript{59} He specifically directs the reader's attention to the burdens of prosecutors on both the state and federal levels in "prosecuting this crime."\textsuperscript{60} He also emphasizes that computer law is an "emerging body of law."\textsuperscript{61} He states that the reader must "check current developments" when "seeking specific information" because of the rapidly changing character of this area of the law.\textsuperscript{62} None of the information thus far presented appears to relate to a layperson's "legal rights and responsibilities," unless Sloan believes that the only individuals interested in computer law are laypeople who intend to enter the exciting world of computer crime.

Finally, he ends his caution with the statement that "[t]he present

\begin{itemize}
\item \textsuperscript{52} Id. at 44-46.
\item \textsuperscript{53} 381 U.S. 479 (1965), cited at SLOAN, supra note 2 at 47.
\item \textsuperscript{54} 429 U.S. 589 (1977), cited at SLOAN, supra note 2 at 47.
\item \textsuperscript{55} 533 P.2d 222 (1975), cited at SLOAN, supra note 2 at 49.
\item \textsuperscript{56} SLOAN, supra note 2 at 49-53.
\item \textsuperscript{57} Id. at back of title page.
\item \textsuperscript{58} Id. at v.
\item \textsuperscript{59} Id. at vii.
\item \textsuperscript{60} Id. at viii.
\item \textsuperscript{61} Id. at ix.
\item \textsuperscript{62} Id.
\end{itemize}
volume represents pretty much what the law is and for the most part will be for at least the next two years or so. 63 Within the computer world, however, two years represents a significant period of time: generations of improvements may evolve. Two years can be a long time in the law as well. 64 In the arena of law enforcement, concern about the potency of computer-assisted crime and computer-related crime has caused a significant amount of change and the intention to change the status quo as rapidly as possible. Equally volatile is the world of statutory law. Any statutes that are passed concerning any aspect of computer use or misuse will have a major impact on the law and every law enforcement agency as soon as they are enacted. Not only will the law have changed immediately and dramatically, but those responsible for its enforcement and interpretation will face the task of implementing seminal legislation, with the added twist that the area will be unfamiliar. Many people, being computer illiterate, will be uncomfortable with the subject matter as well. It is a brave person indeed who would represent that the law is in any respect settled in the area of computers.

Another problem of the book is its brevity. For a subject as complex as computer crime, Sloan attempts a great deal in a short space. His discussion of the history of computer-related crime, for example, concludes in two short paragraphs. The chart which accompanies the two paragraphs highlights two other problems of the book. First, the chart is apparently reproduced from another source; the print is small and difficult to read. Second, no indication exists as to the source of the document, thereby discouraging readers from an attempt to pursue any interest they may have in the history of computer-related crime.

Because of the brevity of the book, Sloan cannot cover topics that would be of as much interest to the layperson as some of the information he has included in the appendices. He mentions in his introduction, for example, the problems of "severe procedural and evidentiary handicaps." 65 Nowhere in the body of the book, however, does he discuss either of those two topics. Nor does he discuss contracts in relation to computers, a topic which would be of practical concern to many laypeople. Nor does he discuss protection of trade secrets or patents, although he does expend considerable attention on copyright protection. 66

63. Id.
64. A case such as Miranda v. Arizona, 384 U.S. 436 (1966), changes law enforcement significantly overnight when it first appears.
65. Sloan, supra note 2 at viii.
66. Id. at 33-41.
Another problem with the book is hasty editing. Almost immediately, readers face text through which they must wade, rather than text that smoothly progresses from one concept to the next. For example, consider the last sentence of the introduction: “The appendices in this volume are particularly important and useful in this volume, and reference to them should be made in connection with the reading of the textual material.”67 The repetition of “this volume” and the passive voice slow the reader.68

The heavy use of appendices presents another problem. In a book intended for laypeople, the technical information comprising the documents in the appendices comes as a surprise. Appendix A, “selected samples of traditional state statutes used to prosecute computer crimes,” simply lists the states and selected statutes with cryptic identifying comments.69 Appendix B, which deals with federal statutes, includes explanatory comments which are apparently more illuminating.70 On closer examination, however, one finds unexplained terms which a layperson might find intimidating: chattel, for example.71 Terms of art such as “interstate commerce” also appear.72 The suggestion to find and read particular named cases, which appear with citations, further surprises.73 Appendix C, a reproduction of a report of the “Privacy Protection Study Commission,” emphasizes once again the personal privacy issue.74 Appendix D75 repeats the problems of Appendices A and B, and Appendix E76 returns to the interminable legal language in tiny print that strains both the eye and the patience.

67. Id. at ix.
68. A considerable number of typographical errors also exist, further distracting the reader from undivided attention to the subject matter. Little printed material can boast flawlessness, of course, but the number of typographical errors in SLOAN reaches significant proportions. On page 28, for example, “inconvenience” is spelled “inconevience”; on page 30, “fire” appears as “fore.”

Other problems of a typographical nature also exist. Words simply are missing, such as “of” on page 42.
69. Id. at 57 et. seq. For example, under the heading Arson, subheading “Connecticut,” the notation reads “53a-112 Arson in the second degree; class C felony.” Id. at 58. Under the subheading “Massachusetts,” the notation reads “266 10 Insured property, burning with intent to defraud.” Id. at 59-60.
70. Id. at 71 et. seq. The notations follow the form of citing a statute with an explanatory blurb. For example, “18 U.S.C. 641: Proscribes embezzlement or theft of public money, property or records. This statute covers only federal money, property and records; however, its authority extends to both the thief and the receiver of the property.” Id. at 71.
71. Id. at 71.
72. Id.
73. Id.
74. Id. at 75-87.
75. Id. at 89-105.
76. Id. at 107-136.
IV. CONCLUSION

Sloan tackled a difficult and complicated area of the law. The temporary nature of any legal conclusions that he could draw at this point complicated his task. It possibly was too ambitious a task to attempt in such a short book. Although the book potentially may confuse the public as much as illuminate the problem, Mr. Sloan deserves credit for attempting to place computer law in context and present it to people who by definition possess expertise in neither computer information nor the law.